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REGISTRATION BUREAU FOR DRAUGHTSMEN.

This bureau is established for the use of architects wanting draughtsmen and draughtsmen wanting positions, free of expense to either party.

All draughtsmen wishing positions must register in person in the office and answer the following questions:

Name and address?
Age?
Married or single?
Experience?
Name and address of last employer?
Salary expected?
References?

All architects wishing draughtsmen are invited to use this bureau.

PROFESSIONAL COMMENT.

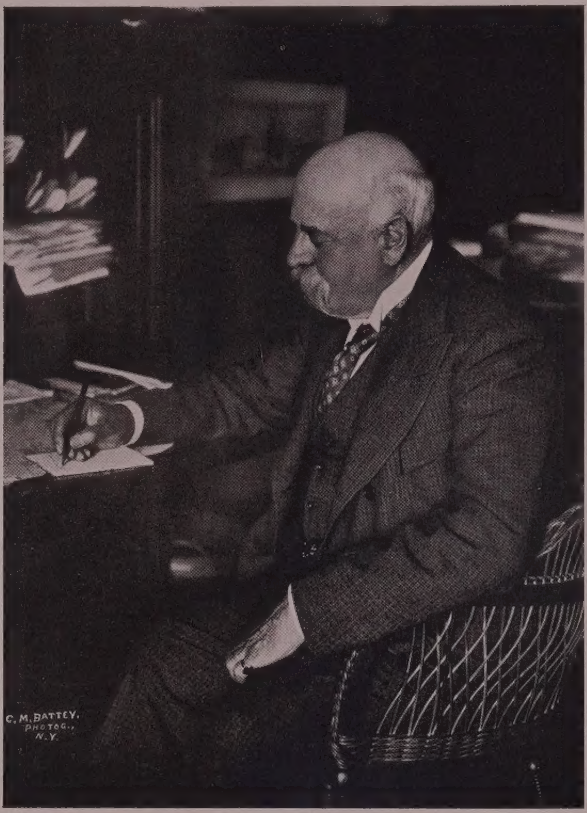
NEW YORK architects will sit up and rub their eyes when they see the award of the one thousand dollar prize in the "Ladies' Home Journal" for the design of a three thousand dollar house. This house contains nine rooms and two baths, and an itemized estimate is given with the design. It will be absolutely impossible to construct this house within fifty miles of New York for less than five thousand dollars.

THE work which the New York Chapter of the American Institute of Architects did a few years ago in attempting to get the city to adopt the schedule of the Institute in its municipal work is being nullified according to the "New York Sun" by the firm of Bernstein & Bernstein, who are now for all practical purposes the city architects and successors to Messrs. Horgan & Slattery. From the extended report given in the "Sun" it is evident that Mayor McClellan's recent recommendation that a city architect be appointed has been unofficially carried out, for all of the municipal commissions have gone to this firm, with the exception of the one appointment for the Manhattan Bridge, and according to the same authority this firm is taking commissions for alterations as well as new buildings at the usual five per cent., which is the very point which formed the basis of the conferences of a few years ago between the representatives of the Chapter and the Corporation Counsel.

THE trade papers and the advertisements of various building materials are continually harping upon the iniquity of the architects specifying a certain material "or equal thereto," and calling attention to the fact that this expression is responsible for a large amount of trouble between architects and contractors. Naturally the trade papers view this matter entirely from their standpoint, and whether it be true or not, the architect continually has to face the problem that when he specifies a certain material without any alternative it frequently serves as an excuse for an exorbitant estimate, the contractors generally stating that on account of the knowledge that the manufacturer has that his material alone has been specified that he has put up the price above the market value. In many cases this statement can be proven to be untrue, but it nevertheless serves as a lever for high prices, and in addition to this situation the architect can usually avoid "the suspicion of evil" by allowing a substitution if he is satisfied with the suitableness of the other material. We have found that a satisfactory solution of the difficulty may be met in many cases by specifying two or three standard materials, either of which would be acceptable. This avoids the difficulty of substitution and gives an opportunity for competition in the bids.

THE somewhat tardy report of the Bureau of Buildings for 1904 has just been issued by Superintendent Hopper in printed form; and for the first time within our recollection it contains information of interest to the building trades other than that which is purely statistical. This useful data is principally contained in the lists of patented materials which are approved by the Bureau of Buildings. These lists cover partition blocks, fireproof paint and fireproof floors, and are particularly useful in the floor tabulation, which includes some fifty or sixty types with the maximum span allowed, the approved live load, and data as to the thickness and material. The report can be obtained by anyone on application to the Bureau of Buildings, and will be found exceedingly useful not only to architects practicing in New York, but to practitioners in any other part of the country.

THE revision of the Plumbing Rules in the Bureau of Buildings has been temporarily delayed by the fact that a discovery has been made by the committee in charge that none of these changes could be put in force legally without the consent of the Borough President. This fact has only recently come to light by a careful examination of the municipal statute, which shows that the arbitrary changes that have been made in these rules in the past have all been unconsciously illegal. Application is now being made to the President of the Borough to sanction the committee appointed by Superintendent Hopper, which is composed of the President of the Master Plumbers' Association, a member of the New York Chapter of the American Institute of Architects, and a medical expert.


C. M. BATTEY, PHOTOG., N.Y.

Architects of To-Day.

MR. GEORGE B. POST.

AMONG the many subjects discussed at the Domestic Science Conference held at Lake Placid in the last week in June that of the "Architect and the House-wife" played an important part, and in the next number of ARCHITECTURE we hope to present some of our client's views on the perverseness of the architectural profession. We have no doubt that the architect fails to appreciate the troubles of the house-wife to the fullest extent in designing a home, but we have our troubles also ; one of these is that this busy lady usually wishes to be her own architect and frequently submits a sketch which she wishes absolutely carried out, notwithstanding that the stairs insist upon coming up in the middle of the bath-room and the soil pipe forms a column in the center of the parlor. The architect after many struggles succeeds in straightening out the tangle and in building a house in which the entrance to the upper floors can be obtained in other ways than by a ladder. When the work is completed Mrs. So-and-so generally says to a friend: "Oh, yes, we were our own architects, John and I designed this house all by ourselves. Of course we could not draw, so we had to hire Mr. A, the architect, to put our ideas on paper. Lovely, isn't it?"

ACCORDING to the experiments recently carried out at Harvard University by Professor Johnson of the Engineering Department, the results of which are published by the American Society of Civil Engineers, it will be necessary for architects to revise the data given in "Kidder," which has been the accepted authority for some years, that 80 pounds should be the figure of minimum live load and 120 pounds the maximum load which would be imposed upon a floor in a crowded assembly. In securing his data Professor Johnson prepared a box six feet square provided with a gate on one side, and a certain number of men, whose separate weights had been carefully taken, was placed within it. By dividing the aggregate weight of the men by the number of square feet within the box, the load per square foot was determined. In the first case eleven men were placed inside the box, whose average weight was 154.6 pounds. This gave a load per square foot of 47.2 pounds, which is 2.2 pounds more than the loading that has been assumed in the designing of some floors, platforms and bridges. That this loading does not represent the weight of an average crowd is proved by the fact that when the men were lined up side by side around the walls of the box, they only covered three sides of it. Twenty-eight men of an average weight of 167.7 pounds were found to be equivalent to a load of 130.4 pounds per square foot.

In the early experiments, when the men were allowed to stand facing in various directions, a maximum result of 156 pounds per square foot was obtained; but since in crossing a bridge, or in a packed assembly hall, all the people face one way, the experiments were continued in order to determine how much a crowd of this kind would weigh, and a result of 176.4 pounds per square foot was obtained. On studying a photograph of the experiment it was evident that the maximum had not been reached, and ultimately forty men, averaging 163.2 pounds were placed in the box, with the result that a maximum load of 181.3 pounds per square foot was obtained. The men, all of them undergraduate students of engineering, ranged in weight form 119.6 to 203.1 pounds, twelve of them weighing less than 150 and ten more than 175 pounds.

THROUGH the courtesy of Messrs. Thompson & Dundy, some fifty members of the New York Chapter of the American Institute of Architects were given the opportunity to thoroughly examine the New York Hippodrome on June 14th, and in the description of the building with which the members were favored, they were told that a large number of the ideas for the stage mechanism were due to German suggestions. It is not alone in the realm of the "Secession" that Germany has forged ahead within the past few years. Experts in stage mechanism seem to agree that in this particular German theaters excel those in any other part of the world. But as an evidence that German engineers do not believe that they have reached perfection in this particular, a German government expert, Herr Possart, has recently been in this country making a tour of all the principal theaters from which any new points could be gained. The extent to which this investigation is being carried is emphasized by an article in a "New Yorker Staats-Zeitung," which tells a story of a new method of meeting the problem of danger from fire and panics now being evolved by a Berlin engineer. All previous efforts in this direction have been devoted to providing means of safe exit by which the audience could escape during the shortest possible time, but this engineer has perfected a model on the basis of the Hof Theater in Karlsruhe, in which in case of danger it is proposed to bodily pick up the audience and place them out of doors beyond the reach of any harm. This he proposes to do by having separate exterior balconies at each level above the orchestra, which when loaded with a certain number of people will automatically let themselves down by chains to the ground level, and in performing this feat these chains will operate shafts placed under the auditorium which through a system of cog-wheels will slide the entire auditorium from the stage to the front wall out into the street upon tracks provided for the purpose. Naturally this system would not insure escape of *all* the people in the galleries even if practicable, so additional wide stairways are provided leading separately from each level in the building by which those left behind could find safe escape when relieved from the panic which might be caused by a large number of people attempting to escape at once.

THE Municipal Council of Rheims—where the Jackdaw comes from—is to be congratulated in that it has shown that respect for ancient buildings which is getting very rare in our time. Thanks to the fore-sightedness of the Council, there has been spared to the town the famous "Musician's House," which exhibits the only example of Thirteenth Century architecture remaining in the old French city. An English paper reports that an American millionaire who is anxious to purchase this house and transport it bodily to the United States offered twenty thousand dollars for the privilege for doing so, but public interest in the matter was so strong that forty thousand francs was promptly raised by popular subscription so that the city might purchase the house itself. The Government then added thirty thousand francs and the city the balance.

SINCE our boyhood days the school-books have taught us that the Escurial in Madrid was the largest building in the world. The archæologists who accompanied Colonel Younghusband's recent invasion of Thibet testify that the school-books were all wrong. The palace of the Great Lama in Shosha, the capital of Thibet, was found to be 900 feet long and 437 feet in height, a size which makes our sky-scrapers look like lilliputians. Exteriorily this building is reported to have a great amount of architectural merit which is somewhat marred by the fact that it is painted a dazzling white, which glistens in the sunshine for many miles. The interior, although containing nearly three thousand apartments, was found to be bare of architectural interest.

THE GEORGE WASHINGTON UNIVERSITY.

A SITE of five acres, corner of Seventeenth and B Streets, N. W., Washington, D. C., bounded on the east by the White lot and on the south by Potomac Place, has been secured by the University for the proposed new buildings.

The scheme comprises: A Memorial Hall to cost $500,000; Alumni Hall, $150,000; Hall of Law, Politics and Diplomacy, $150,000; Hall for Class-rooms and Professors' Offices, to be known as "Corcoran Hall," $125,000; Hall for the School of Architecture, $60,000; eight Dormitory Buildings, $150,000. The buildings are to be fireproof and heated from a central plant. Six architectural firms competed, the designs of George B. Post & Sons being accepted, the unsuccessful receiving $200 each.

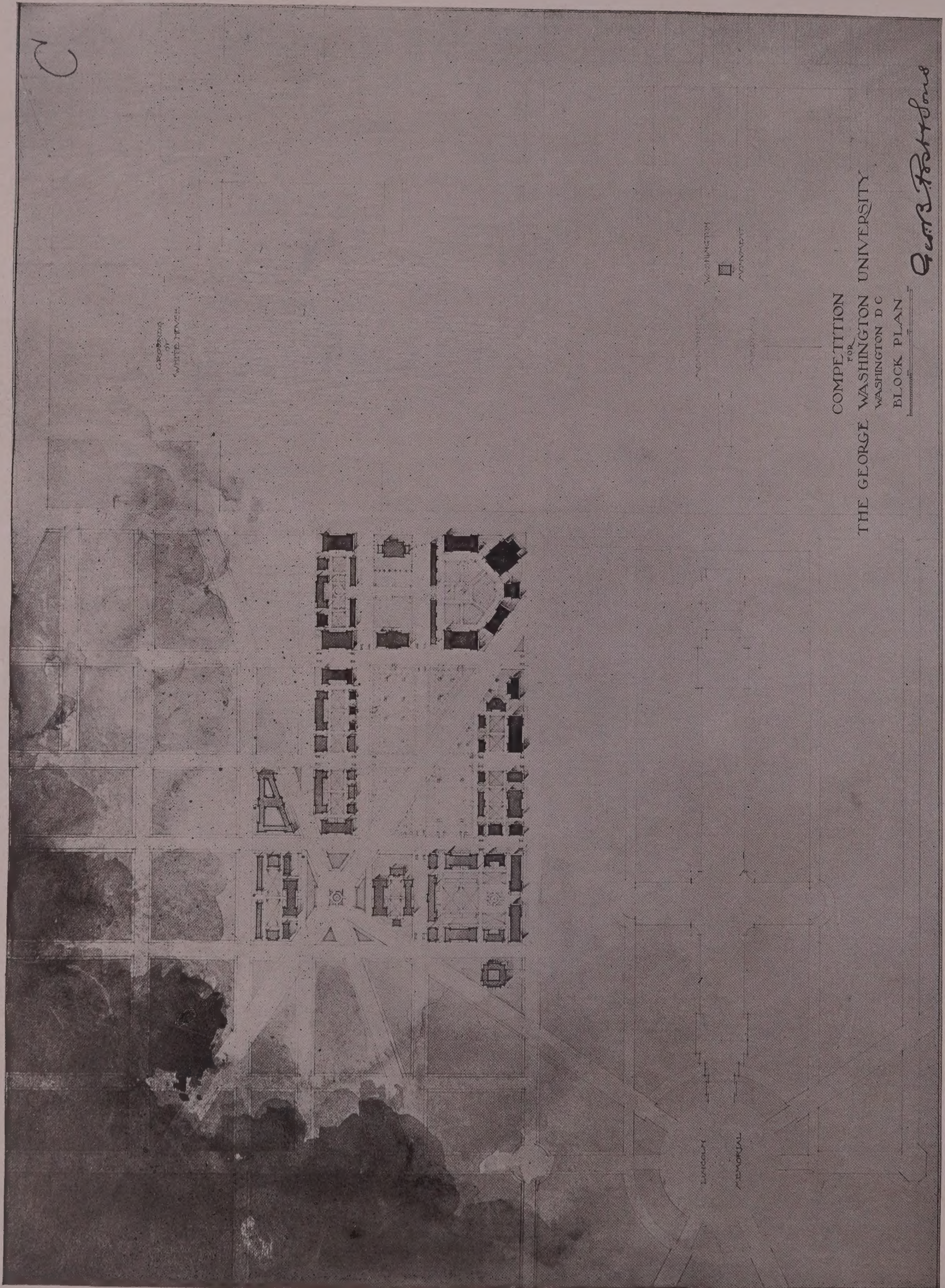
FACTS IN THE HAYDEL-GOULD LAWSUIT.

IN the lately contested suit brought by Abner J. Haydel, architect, against Howard Gould, to recover damages for breach of contract and for professional services, there are some salient points which should be brought to the attention of the profession. Mr. Haydel was employed by contract with Mr. Gould to make sketches for the proposed "Castlegould" to be erected at Sands Point, L. I. While the preparatory drawings were in process a disagreement arose in which Mr. Haydel was treated with a discourtesy which offended his professional dignity and made a continuation of interviews impossible. Thereupon Mr. Gould brought suit for $30,000 against Mr. Haydel, alleging breach of contract for refusing to call upon him at the Waldorf Hotel. Mr. Haydel, on the other hand, demanded arbitration, as provided for in the contract, and this being refused he then instituted a suit against Mr. Gould for breach of contract. As the latter suit was brought in Nassau County, Mr. Gould's place of residence, it was the first to be reached on the court calendar.

In the trial the Goulds contended that the sketches never had been accepted, endeavoring to prove that they had not been signed and also their incompleteness. The architect proved that the foundation working drawings had been verbally ordered. The Court held that the preliminary sketch was merely an instrument to assist the meeting of the minds of architect and owner and, therefore, the nature and character of the sketch were immaterial, whether finished and complete sketches and plans or merely a rough plan on a scrap of paper, and that the ordering of a working foundation plan constituted a meeting of the minds and acceptance of the sketch plans which entitled the architect to his commission of one per cent.

The nature of the contract between Mr. Haydel and Mr. Gould was similar to that of an artist who agrees to paint a portrait to a client's satisfaction, and the Court held that the whims of the owner had to be satisfied in every particular without the contingency of reasonableness, and, moreover, the contract permitted unlimited changes by the owner and provided for payments to the architect upon the acceptance of the sketch plans and also on the obtaining of final estimates, and until those conditions were complied with the architect could not recover.

The architect contended that the conduct of Mrs. Gould had been such that he could not subject himself to further indignity, but he offered to meet Mr. Gould at his office or at the architect's office. This Mr. Gould had refused to do, and hence the breach. The Court held that all contracts implied courtesy and propriety of language, and that in the case of an architect whose duties made frequent consultations necessary, if abusive language were used and the architect so humiliated that he could not consult with his clients, and thereby was prevented from continuing his work, it constituted breach of contract. Thereupon, the jury awarded the full 2½ per cent. commission and $5,000 damages for breach of contract, making a total of about $29,000.


COMPETITION
FOR
THE GEORGE WASHINGTON UNIVERSITY
WASHINGTON D C
BLOCK PLAN
Geo. B. Post & Sons
GROUNDS OF WHITE HOUSE
WASHINGTON MONUMENT
LINCOLN MEMORIAL
C

HOUSES BUILT OF GLASS.

THE residents of Des Moines, Ia., can no longer throw stones in safety if the old proverb is to be observed, for they will be living in glass houses, provided the plans of the Iowaian inventor are accepted as being practical.

Mr. C. E. Eastman, a well-known architect of that city, says the *American Inventor*, has just received patent rights for his discovery and application of a novel use for glass—namely, that of building houses, office buildings, hotels, municipal structures; in fact, every sort of an edifice.

The first official structure under consideration is the National Bank. The plans show it to be a building of Classic design, chaste in decoration and solid in appearance, entirely lacking in windows so called, but well lighted by very reason of the material of which it is built.

Dwelling or skyscraper it is all the same, these glass structures consist of steel framework supported by brackets attached to the beams of the floors, in duplicate, making two walls of opalescent wire glass, the glass being set in the steel framework. The glass walls are approximately a foot apart.

This system of construction allows of any arrangement of floor plan, because windows are unnecessary, the light coming from the walls being sufficient even in the most thickly built up portions of a city where the buildings crowd close upon one another and so block out the sunlight. For the same reason the exterior will admit of any style of treatment entirely free of the restrictions of fenestration.

Mr. Eastman believes windows to be an insurmountable evil in buildings, because of the admission of air through them, which is responsible for the dust, smoke, odours, insects, leakage of heat, danger of falling out, admission of rain, not to mention the dangers and necessity of washing them, loss of papers, colds from draughts, etc. That his buildings are "windowless" is one of the big advantages claimed for them.

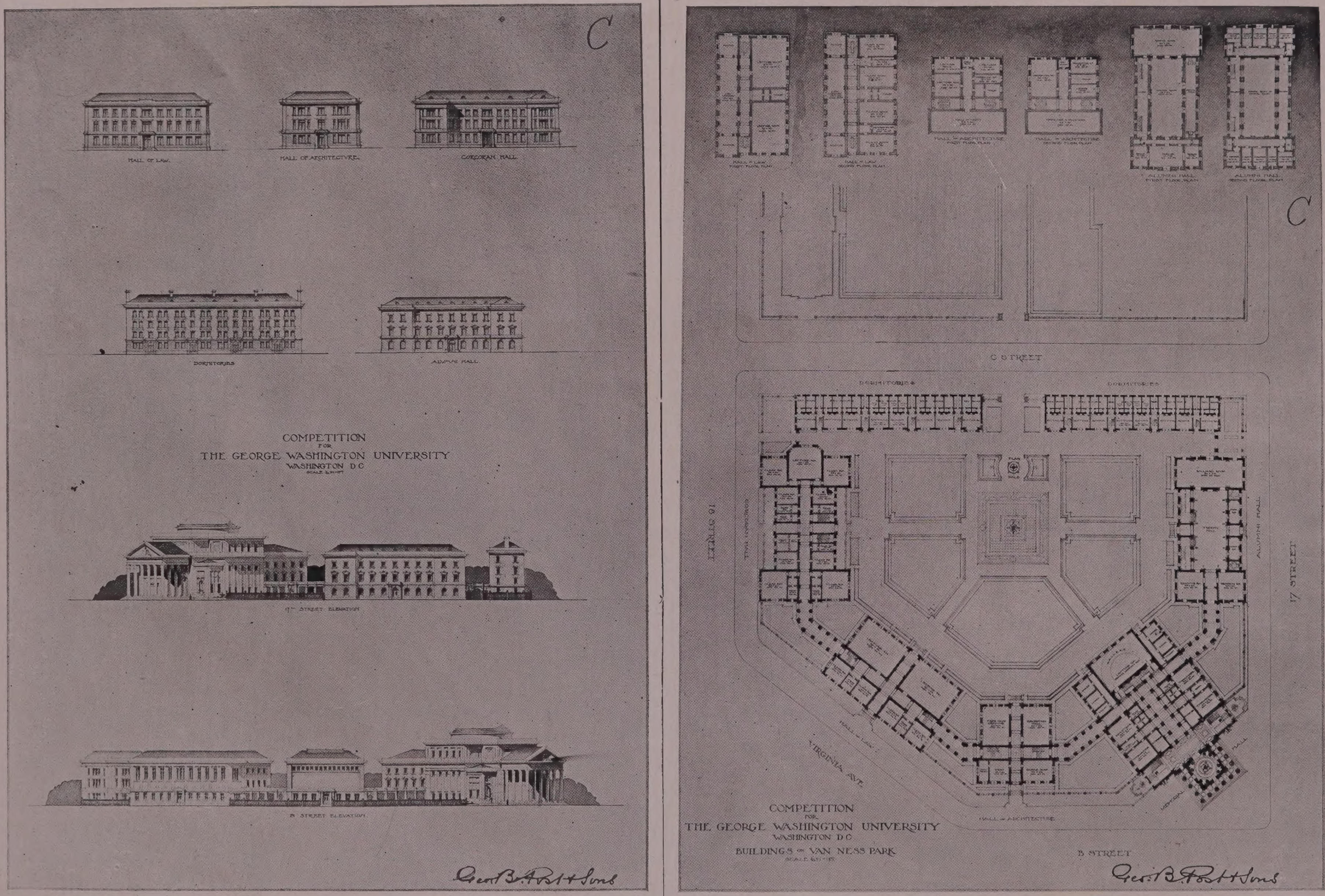
The glass wall is fire resisting to a practical degree, as it has been demonstrated that wire glass will resist a hot fire, and though necessary to replace it after a big conflagration, the fire damage would be local and easily replaced, the cost being much less than in rebuilding a structure of other material. The inside treatment allows of a marble wainscoting halfway to the ceiling with glass over so that wall space is available for desks, counters, shelving, etc., on all sides of a room, and at the same time more light is produced than with windows.

If an outlook is desired, a stationary portal of plate glass of one thickness can be placed in the wall, or the columns in the treatment of the exterior can be of plate glass forming bays. The cost of these glass buildings compared to stone, terracotta, or brick would be from a quarter to a third less for the outer walls. The inner construction of the building is similar to that in general use, either in steel or masonry. In steel construction the outer supporting columns are set back from 6 ft. to 10 ft., and the floor beams support the outer walls by their cantilever properties, thus relieving the columns of the contraction and expansion now incident to those which are in the outer walls. The buildings may be very easily cleaned. By means of a fire-hose the entire outer walls can be washed in a few hours without subjecting the interior to dampness.

DEMANDS ON THE PROFESSION.

THE ordinary attainments and duties of the architect have now to be supplemented by a large amount of miscellaneous knowledge. To be able to plan a building for a certain purpose, to design its elevations, and to write the specifications and prepare contracts, very imperfectly represents the modern professional architect's work. To do each of these things properly involves an examination of other buildings for a similar purpose, an inquiry into the accommodation and requirements, and an acquaintance with special materials and fittings; but in addition to these matters the professional architect of the day has to turn his attention to other subjects outside his direct calling. We do not here refer to municipal and legal questions, important as they are, but to a few of the practical questions which have to be mastered, and which have a relation to the structure. We may take, first, those with regard to the materials, their preservation from decay and protection against fire. What a great deal the architect has to learn from chemistry and physical research—about questions which have been only lately investigated. A few years ago the architect never thought of any danger arising from the storage or contact of certain materials like wood, or waste of organic substances which, by chemical action, under certain conditions of temperature, produced spontaneous ignition. Thus woody fibre, cotton, paper, straw and other organic substances are liable to burst into flame when collected in large quantities in a damp state, when they undergo a process of heating from oxidation or fermentation. Hay and cotton-waste are very liable to take fire without any external cause, especially when impregnated with oil. Dry wood is known to have caused serious fires, as when deal joists or woodwork have been exposed to flues or hot water-pipes or steam at high temperatures, and to a current of air. These are accidents which the architect is called upon to prevent by simple means of precaution. Again, since the introduction of iron and steel into our modern buildings, the use of methods to protect these metals from oxidation has become a necessity in structural arrangements, and the architect who constructs buildings with these materials is responsible for their durability. The chemistry of building materials is far-reaching in its results, but few in the profession ever study it. Certain practical results are, however, known, as, for instance, that iron or steel thoroughly incased in concrete will not corrode. The combination of metal and cement concrete has been proved to be of value in the case of reinforced concrete, and its preservative properties have been attested by the records of the steel cage office buildings in which the metal has been embedded in cement concrete. It has been found in office buildings taken down after a few years that cast-iron girders supporting the brick arches of the sidewalk were rusted where the brick was in contact with the iron; but where the mortar was in contact the iron was quite clean and black, looking as if it had been taken from the sand just lately. Paint is far less preservative; but when protected with cement, mortar or concrete the paint is well preserved. Again, the chemical solutions and preparations for impregnating wood to render it fire-resisting are matters with which the modern architect is supposed to be acquainted. We may not place much confidence in treatments of this kind, but for many purposes where the timber or joinery is exposed to risk the process is useful. Better known, though seldom observed in practice, is the destructive action which certain metals and other substances have upon iron. The contact of iron with any metal which is electro-negative to it produces corrosion or decay. Any metal which has less affinity for oxygen causes corrosion of the iron, and cast-iron and steel decompose rapidly in sea-water of a certain temperature, especially malleable iron. So also it is well known that the acids in timber attack crystalline iron,

(Continued page 111.)



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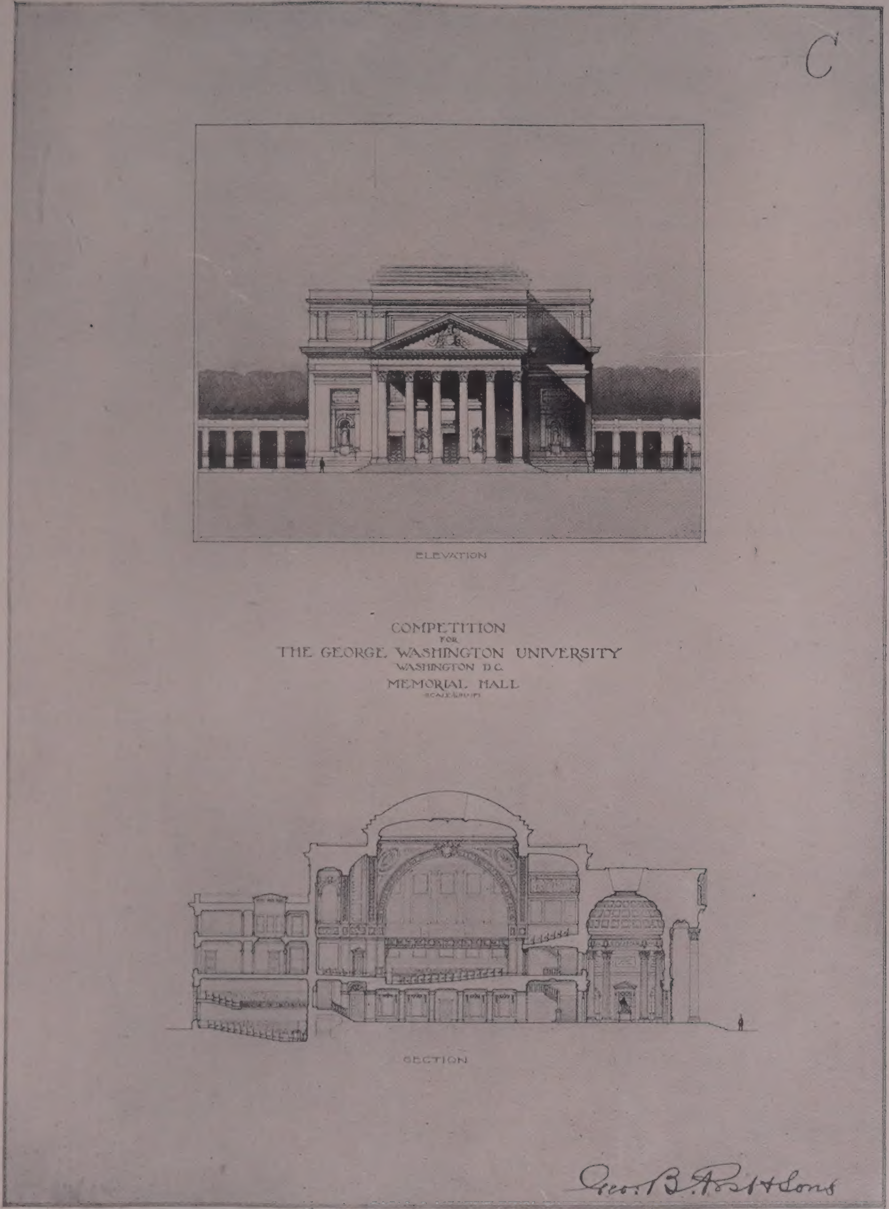

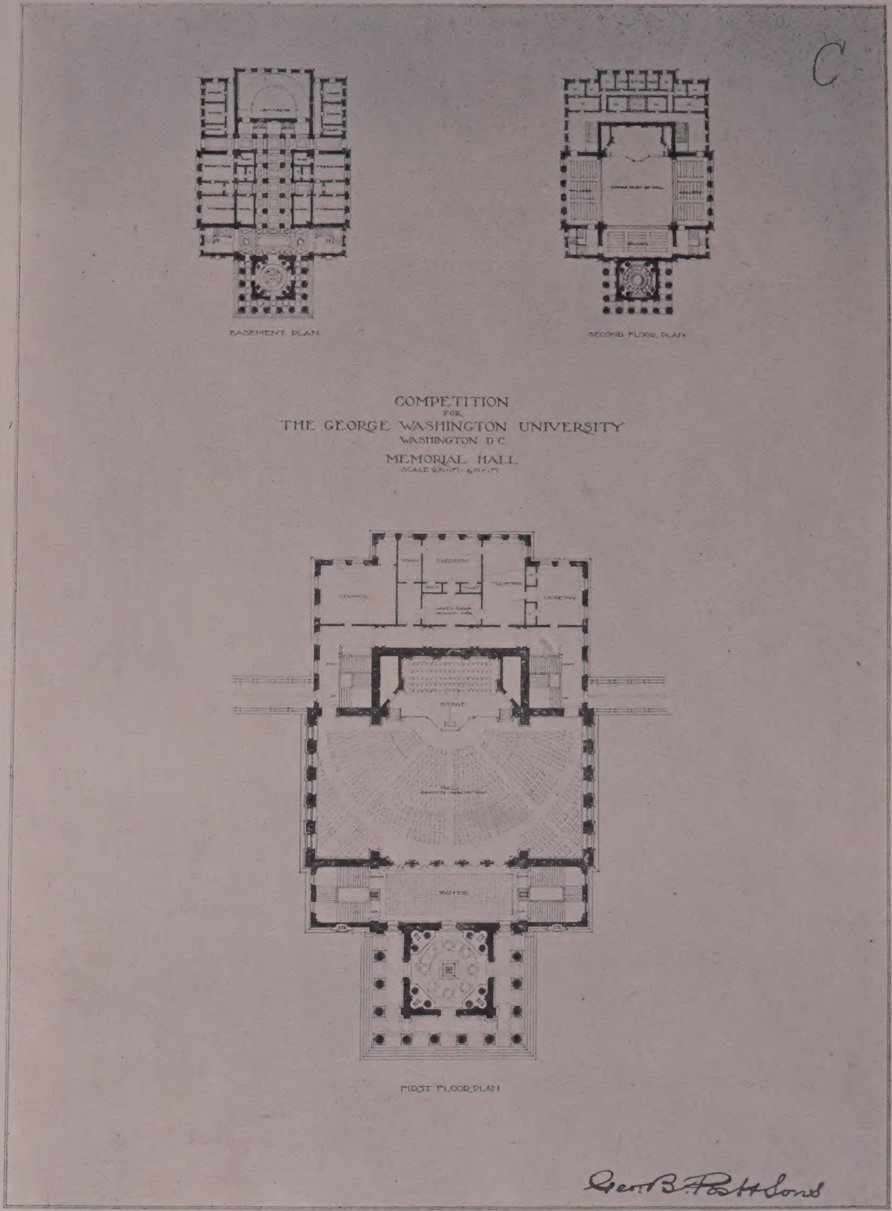

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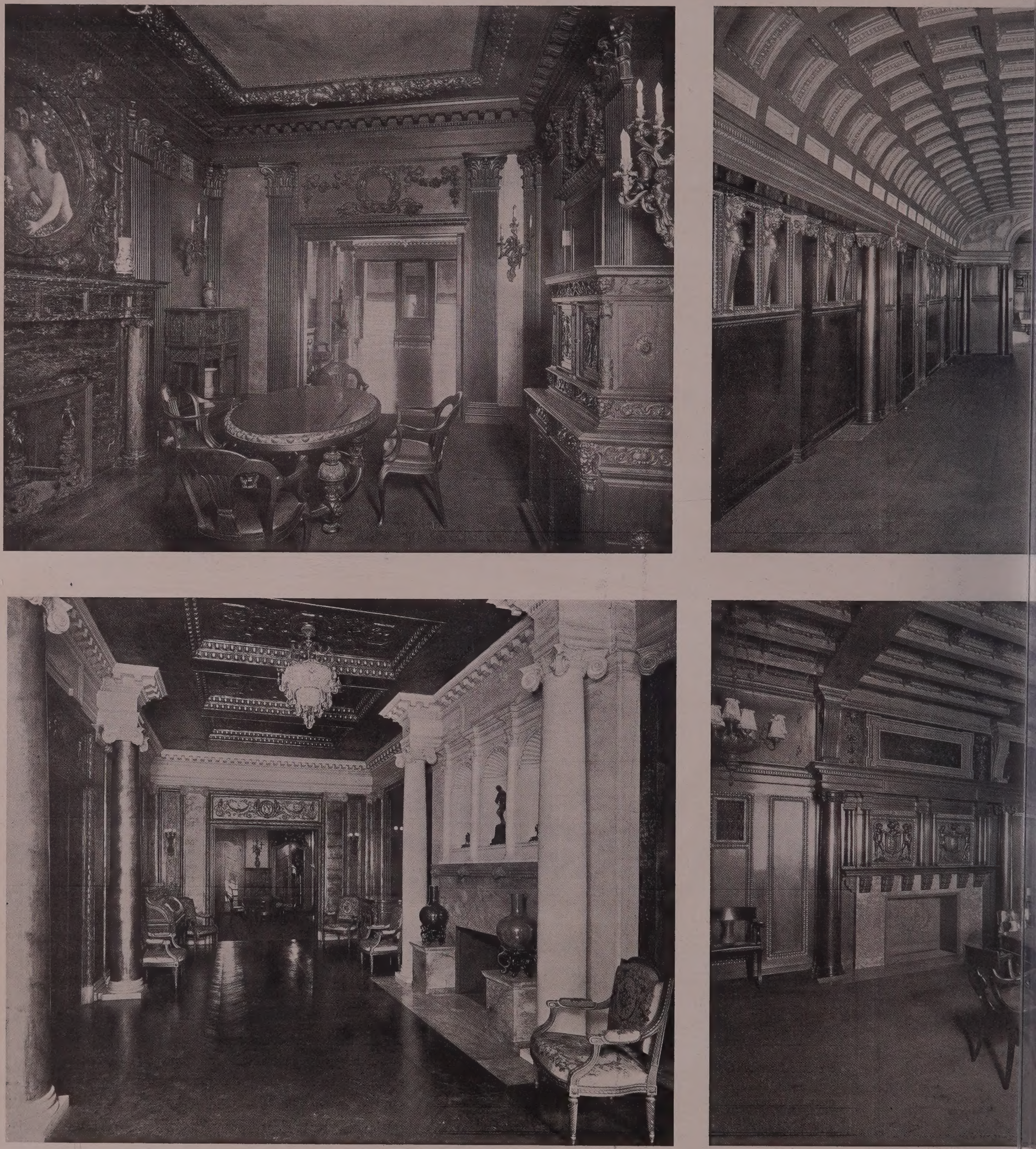
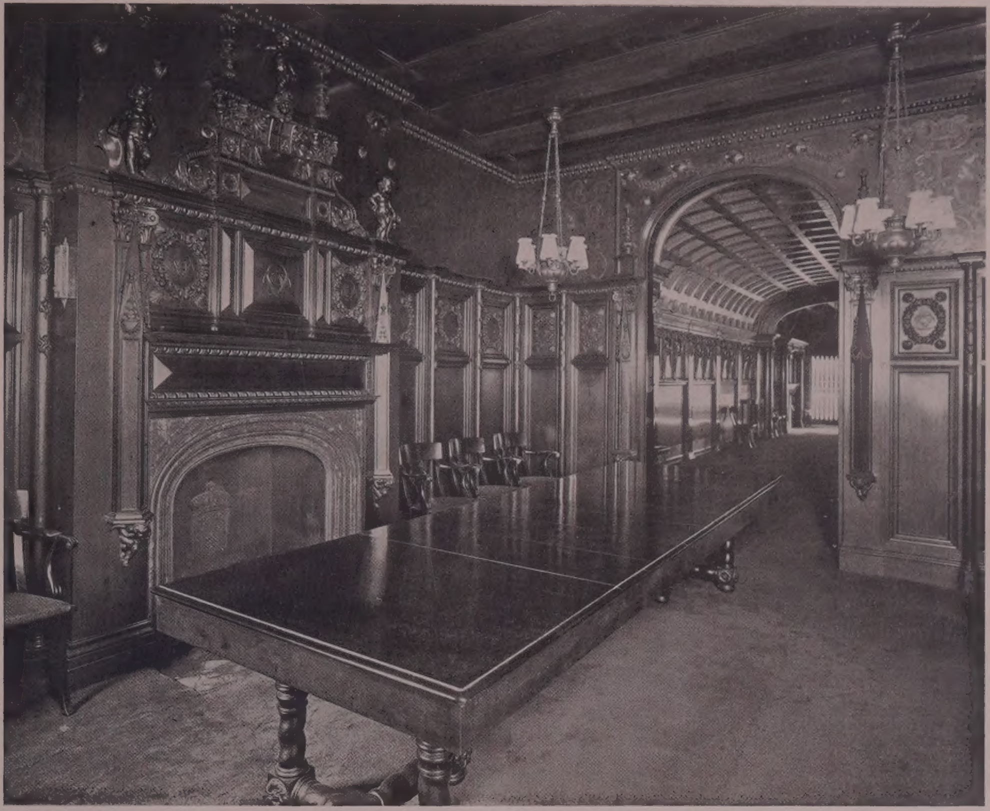
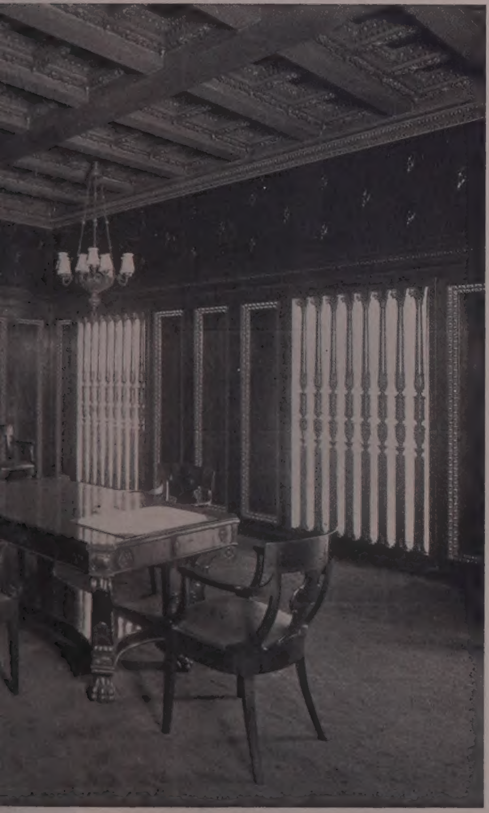
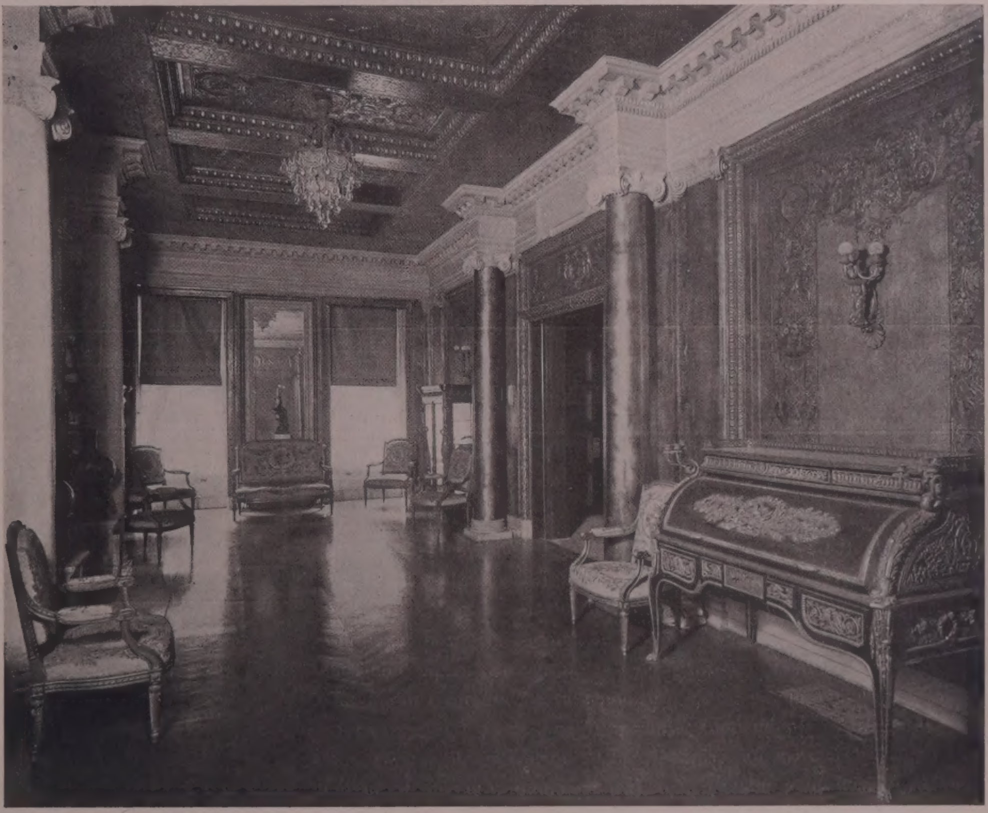


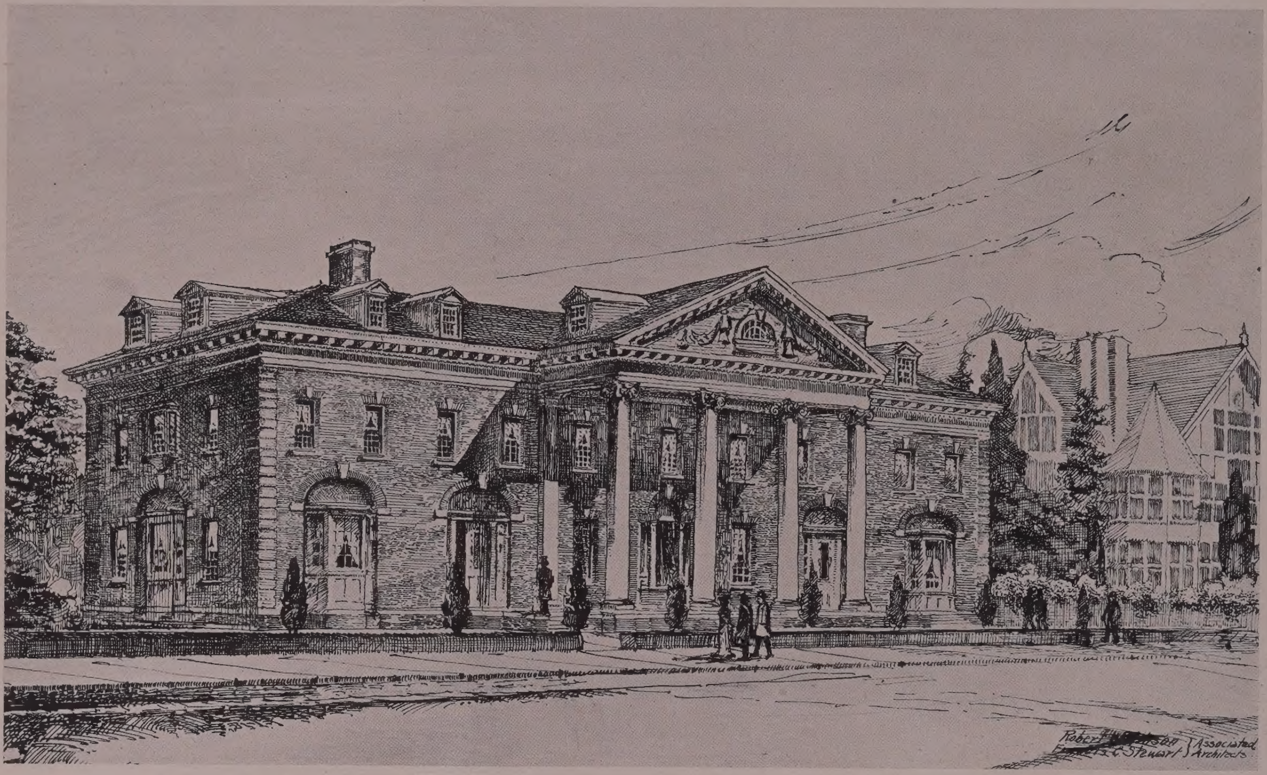
INTERIORS, GAMING HOUSE, RICHARD CANFIELD, 5 EAST 44TH ST., NEW YORK.



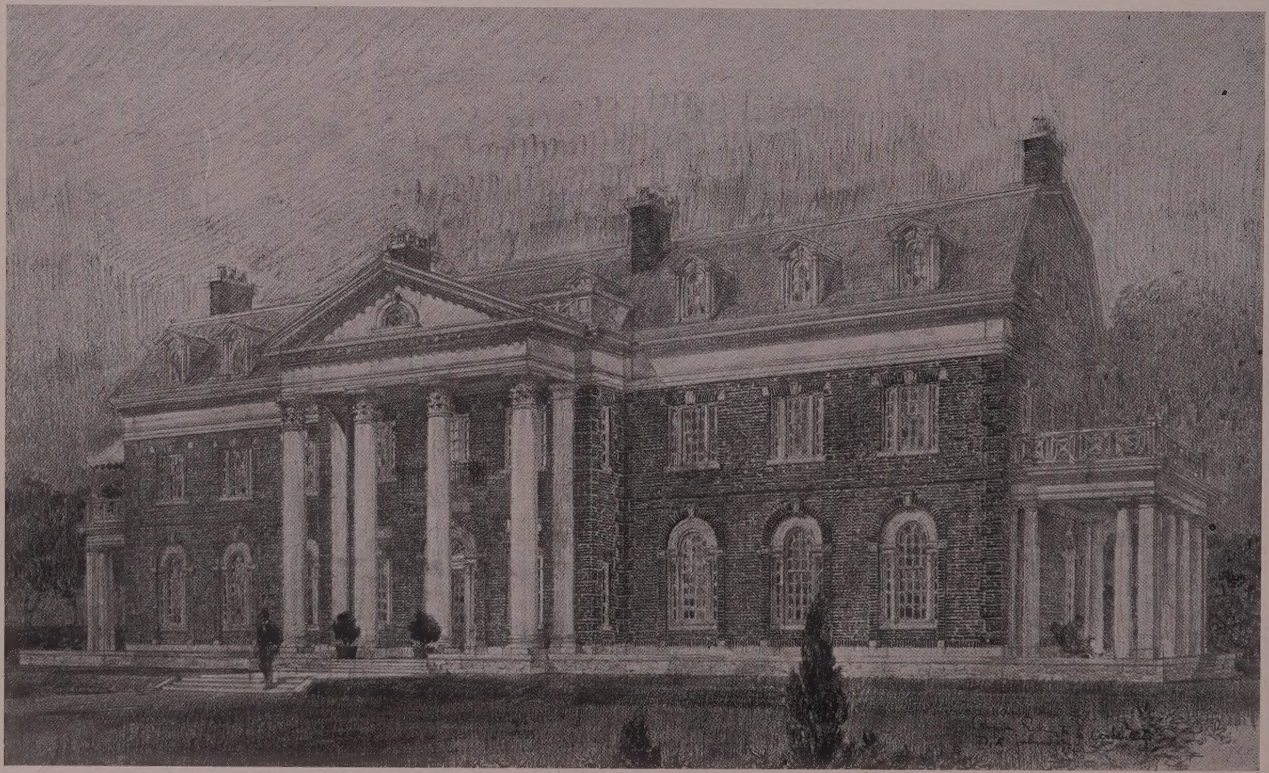




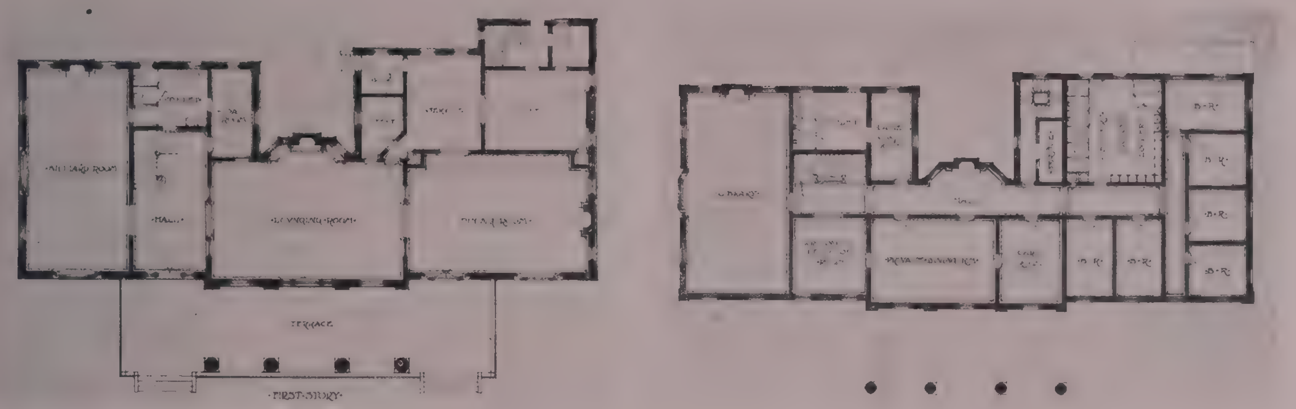
Clarence Luce, Architect.



ACCEPTED DESIGN, COLONIAL CLUB, PRINCETON, N. J. R. W. Gibson and F. G. Stewart, Asso. Architects.



COMPETITIVE DESIGN, COLONIAL CLUB, PRINCETON, N. J. Aymar Embury, 2d, and T. R. Johnson, Asso. Architects.



FIRST AND SECOND STORY PLANS, COLONIAL CLUB, PRINCETON, N. J.

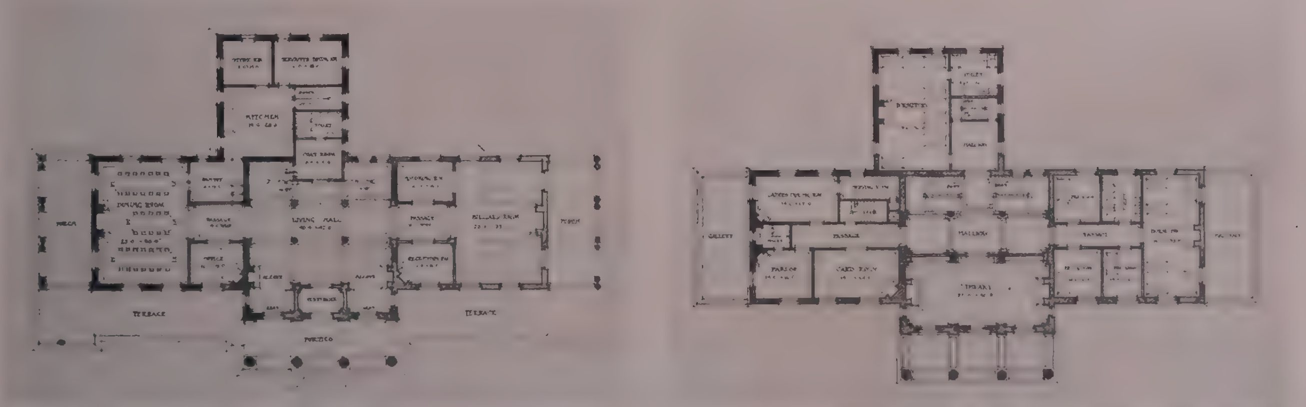
R. W. Gibson and F. G. Stewart, Asso. Architects.

(Continued from page 105.)

and its introduction for fastenings in certain woods ought to be safeguarded, and everyone must have noticed the galvanic action set up between iron and lead when the latter is used in solder. Iron bars or railings soldered into stone curbs rapidly decay, owing to the presence of moisture in contact with the two metals.

STOCK-IN-TRADE DESIGNS.

EXAMPLE is a powerful influence with most people; and it may be for evil as well as for good. The modern architect is beset with examples, good, bad and indifferent, and out of the immense store of the materials before him he selects those types which are found by experience to give the most satisfactory results. The law of the "survival of the fittest" has much to do with such selections. So the "stock-in-trade" pattern or design exemplifies that "central" or convenient mode of construction or expression which has been found to satisfy most people, or otherwise it would not be kept in stock. Thus we have stock-in-trade goods like sections of girders and beams, certain sizes and shapes of brick and stone for various purposes, stock bricks, certain patterns of stoves, door fastenings, framed doors and windows, and a variety of other things which are largely in demand. The effect of standardizing will be to reduce the number of sections of steel or iron and other materials, and in a practical and economical sense will be an advantage. But in art the "stock" design has not the same desirable meaning, for it too often denotes the commonplace and the stereotyped. At the present day it represents by far the larger portion of our buildings. There is a sense in which the term "stock-in-trade" may be used without meaning anything derogatory, as when we say the article is of the most serviceable type for the many. We may mean such an article as a stove, a coal-scuttle, or an article of personal use as a watch. The stock or ordinary class of manufacture is the most useful in such a sense. Such articles have, however, definite uses; they do not vary with circumstances, like architecture. We do not design our offices, houses, schools or churches as we do these articles; the idea is preposterous. The stock design for a building represents poverty of invention. Can we imagine our streets made up of houses of the average type? They would produce an insufferable monotony. Yet the larger bulk of our buildings is the work of copyists or adapters. We do not complain of this if the best models are chosen; imitation is said to be the sincerest form of flattery, yet it is not flattery we want so much as well-thought-out-design building honestly expressed for its purpose. In some things we cannot dispense with examples. Plan is one of them. No architect worth the name could pretend to give us a new plan every time he designed a house, a hospital or a school; if he did he would fall into grievous mistakes. He would have to adapt it to accommodation and to site, of course, and that would probably be the extent of his obligation as regards arrangement; nor could he set at defiance the examples of composition or of detail which the past has furnished. Emerson says justly: "Every thinker is retrospective. It is easy to see that what is best written or done by genius in the world was no man's work, but came of wide social labor, when a thousand wrought like one sharing the same impulse."



FIRST AND SECOND STORY PLANS, COLONIAL CLUB, PRINCETON, N. J.

Aymar Embury, 2d, and F. R. Johnson, Asso. Architects.

THE SCHOOLS OF ORNAMENT.*

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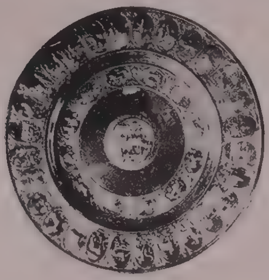
Indian.

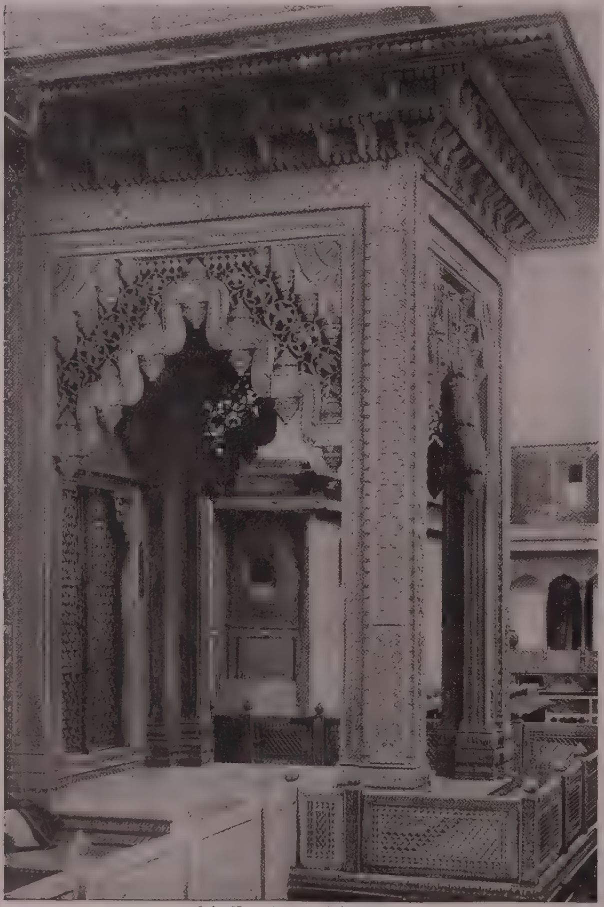
Buddhist religion, art and architecture introduced by Prophet Sakya Muni, B. C. 638. Jaina style 250 A. D., Conquest by Alexander the Great, 327 B. C., introducing Persian Art. Arabian Invasion, 711 A. D., Mahometan dynasty, 711-1152 A. D., Mogul dynasty, 1525-1837 A. D.


Jeypore Brass Tray.

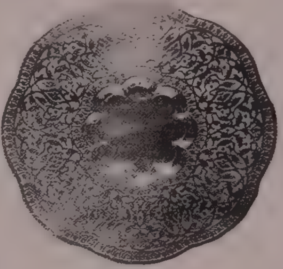
PERSIAN influence and also a vague likeness to Chinese forms, are distinctly seen in Indian ornament. Fruit and flower suggestions are freely used, and conventionality strictly observed. A wonderful richness and refinement of leaf and stem in geometrical patterns and also free and flowing designs are common.

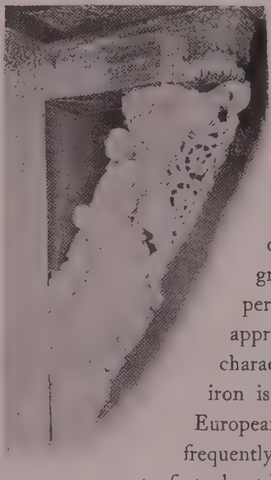
It is in such buildings as the Taj Mahal and in many of the private house balconies and doorways that the beauties of Indian work are especially noticeable. The pierced stone and wood and metal work found all over India are unsurpassed examples of a high degree of art, and show the wonderful possibilities in the conventional treatment of natural forms; Indian grilles in marble often reach such heights of grace and beauty that it seems as if human imagination could not go beyond them.

The paneling of woodwork enriched by ornamented bosses of metal or wood at the intersections, often suggest the bold studded effects on Byzantine caskets, and doubtless Byzantium borrowed much from many Eastern schools.


Jain Temple at Delhi, India.

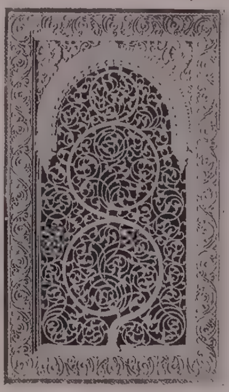
The excessive richness of Indian ornament is at times almost labored and cloying, but the impression given is that of a tireless art which never ceases reproducing pattern after pattern, each more wonderful than the last, and all in harmony. In fact this harmonic chord is the dominant and constantly repeated undertone, which is charming, although we cannot quite understand how it is produced. It is like the trick of the fakir, the soporific tune of the snake-charmer, but nevertheless the result of great knowledge of ornament.


Jeypore Brass Tray.


Corbel at Ahmedabad.

Iron in India is most delicately wrought into railings and grilles, while brass, bronze and copper are, as all the world knows, most appropriately decorated according to the characteristics of the metal. In wrought iron is found many a design used later in European work, the scroll or volute being frequently introduced. One very noticeable fact about Indian ornament of to-day is that it shows less tendency to deteriorate by catering to the European market, while Japan and other countries are showing the bad effects of this commercial spirit of copying things English and American.

If one were asked to state in which direction Indian ornament was most emphatically effective, it would be safe to say that it was in the use of perforated designs. The great beauty obtainable by piercing the material used was early appreciated and carried to such remarkable results, that in this kind of work no school has excelled, and few have equalled the examples found all over India. It may be that in Persian art lie the beginnings of this vein, yet perhaps it is safer to say that each Oriental school has in greater or less degree intuitively felt the value of perforated work, but that India has carried it to wonderful heights.


Window, Shapoor Mosque.

No one realizes better than the writer the utter inadequacy of a brief description of Indian decoration. It is a subject on which volumes have been written, and yet all has not been said.

One fact, however, strikes the student forcibly, and that is that natural forms are not made too realistic nor are they violated, but interpreted by the eye and hand of close and fond observers.

To Mr. Lockwood de Forest I wish to acknowledge my indebtedness for the loan of most of these illustrations. They are from the photographs taken by order of the English government.

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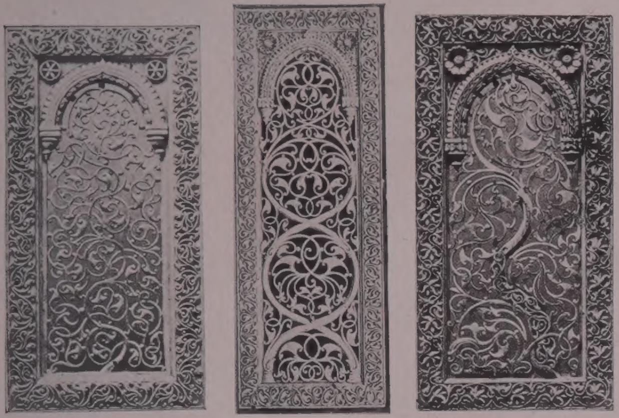
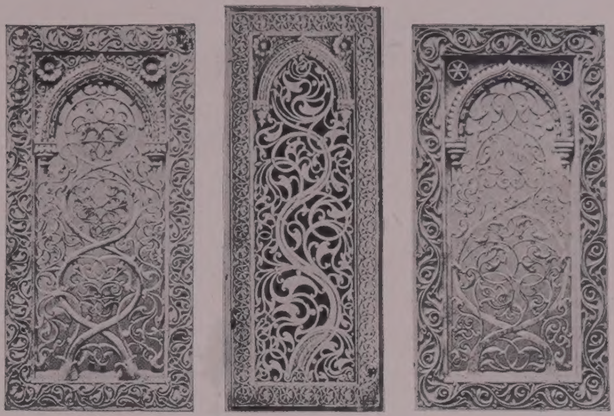
* A series of articles written by Mr. William Winthrop Kent, Architect, forming part of "A Treatise on Locks and Builders' Hardware." by Henry R. Towne, President of the Yale & Towne Mfg. Co., and Past President of the American Society of Mechanical Engineers. This book is profusely illustrated and contains more than 1100 pages, 4x6½". John Wiley & Sons, Publishers. Price, $3.00. It is the intention of the publishers of ARCHITECTURE to reprint one school in each number.



Rani Sipri Mosque. Meerjapoor Mosque.

Mosque Window Traceries, India.



Rani Sipri Mosque. Meerjapoor Mosque.

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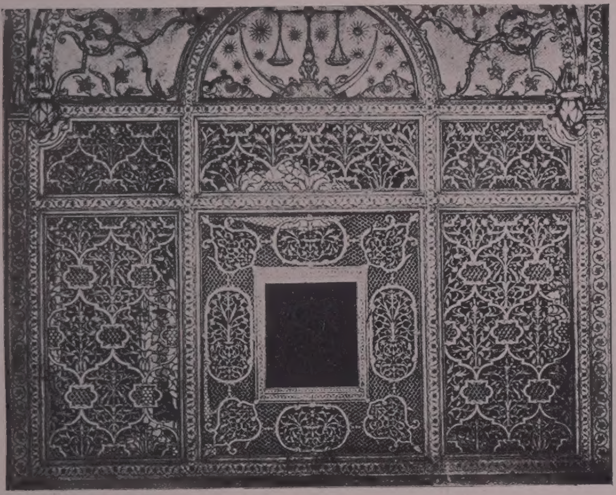
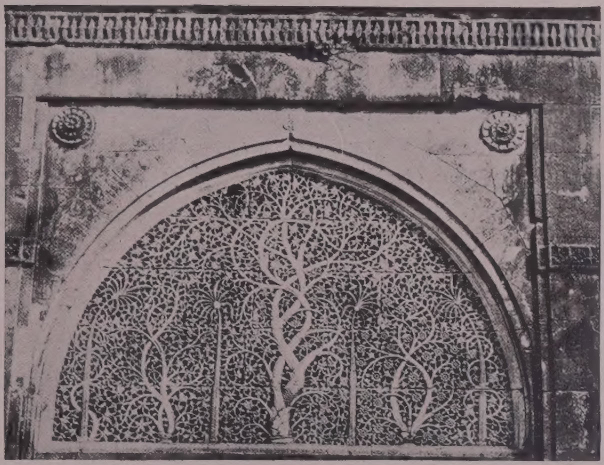
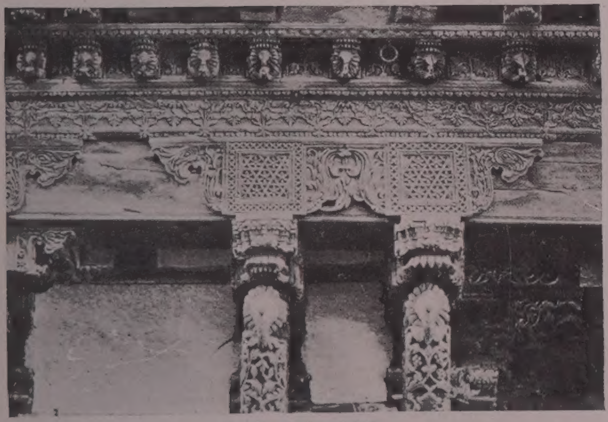


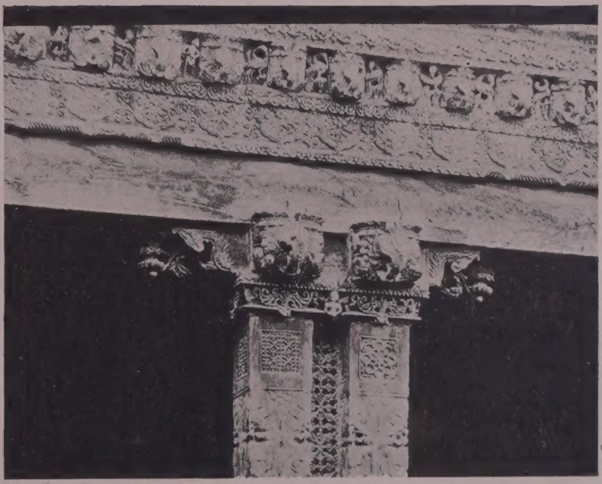
Pierced Screen, Throne Room at Delhi.



Bhudder Window at Ahmedabad.



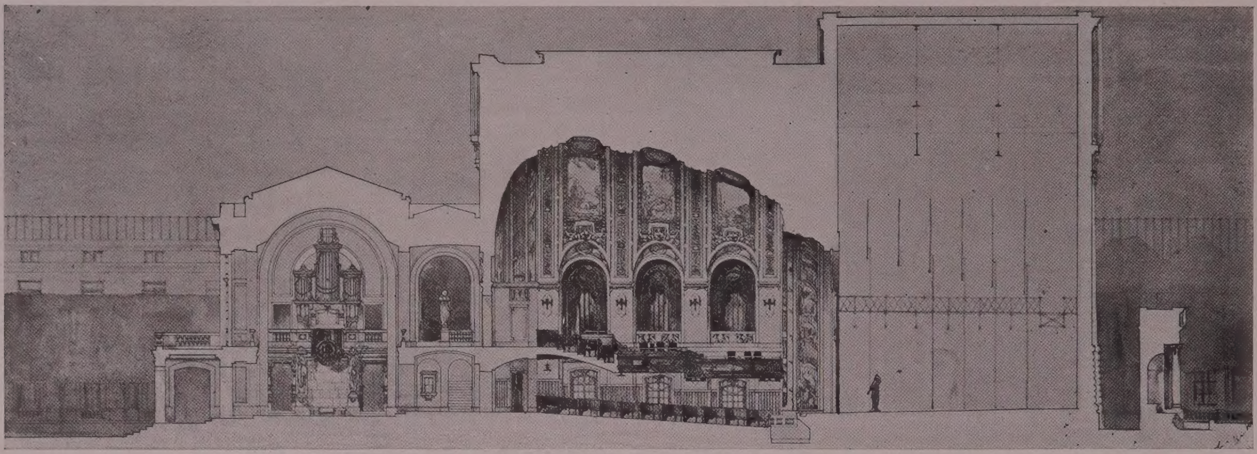
Details at Ahmedabad.



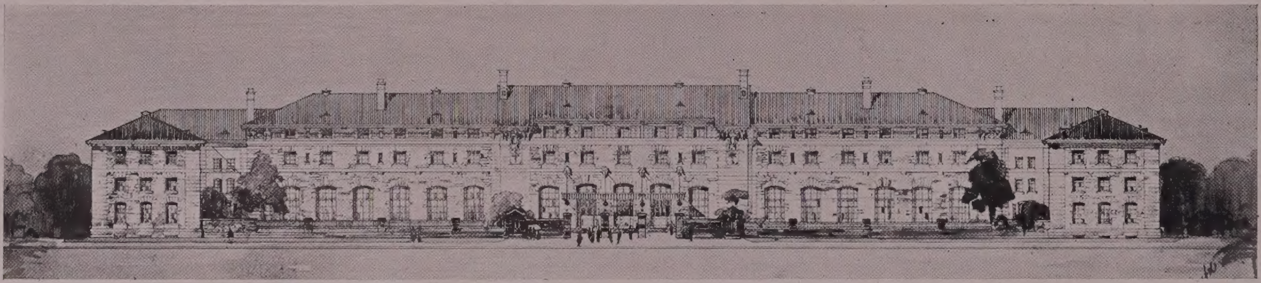
Details at Ahmedabad.

EXAMPLES OF INDIAN ORNAMENT.

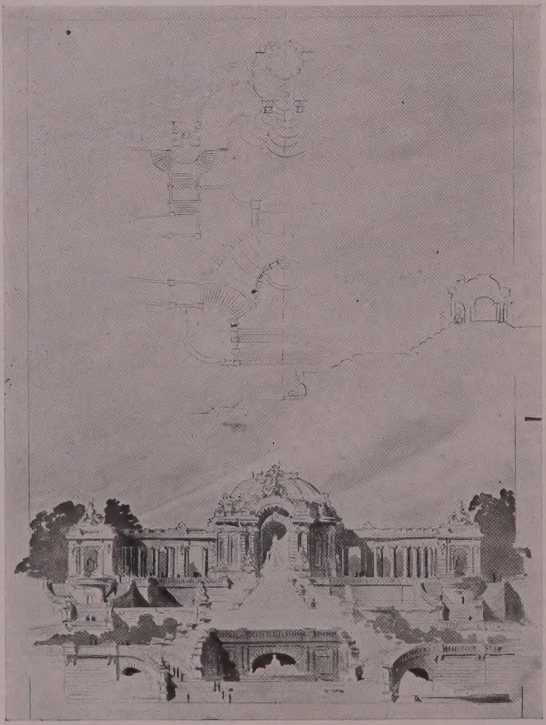
See opposite page.



THE DECORATION OF A THEATRE. II Medal. John Wynkoop, Atelier Donn Barber.

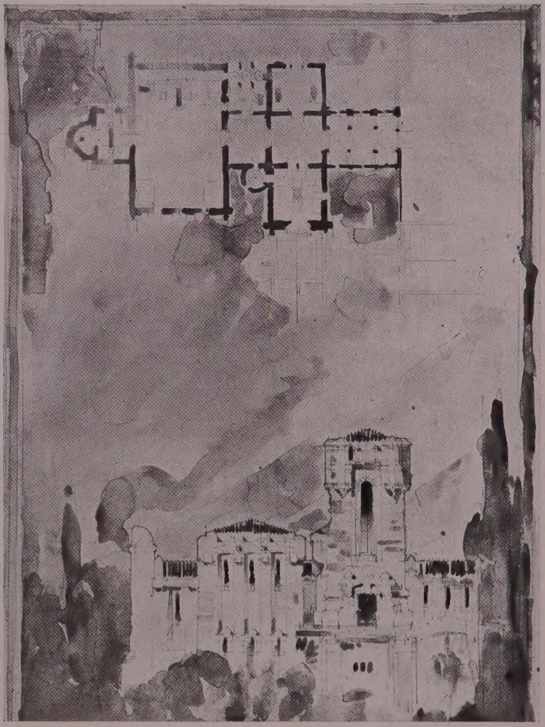


A DORMITORY FOR AN IMPORTANT COLLEGE. I Medal. John Wynkoop, Atelier Donn Barber.



CHATEAU D'EAU.

I Mention. A. R. Eggers, Atelier Hornbostel.



A PAVILION FOR ELECTROCUTIONS.

I Mention. W. de Mari, Atelier Hornbostel.

BEAUX ARTS COMPETITIONS.

The Society of Beaux Arts Architects

INCORPORATED 1894.

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OFFICIAL ORGAN - - ARCHITECTURE.

CLASS B—ESQUISSE-ESQUISSE.

A PAVILION FOR ELECTROCUTIONS TO COMMUNICATE WITH THE STATES PRISON.

It is intended to erect a small pavilion for the purpose of electrocuting prisoners condemned to death.

This mode of execution embraces new conditions, and it is therefore necessary that this building shall fulfill all the requirements and shall contain the necessary appliances.

The architecture of the building shall be indicative of the nature of the purpose to which it is put.

The pavilion shall contain an Execution Chamber, a Waiting Room, a Room for Witnesses, an Autopsy Room, an Executioner's Office, Toilets, etc.

The basement shall contain an Engine Room with accommodations for dynamos, etc.

An enclosed corridor will connect the pavilion with the main prison.

The greatest dimension of the building shall be 40′ x 50′.

Drawings required :

One elevation	Scale 1/8″ = 1 foot.
One plan	" 1/8″ = 1 foot.
One section	" 1 1/16″ = 1 foot.

LLOYD WARREN,
Chairman Committee on Education.

REPORT OF JUDGMENT.

CLASS "B" ESQUISSE-ESQUISSE. A PAVILION FOR ELECTROCUTIONS.

de Mari, Walter, . .	New York	Atelier Hornbostel	1st Mention
Eggers, A. R. . . .	New York	Atelier Hornbostel	2nd Mention
Cantin, A. N. . . .	New York	Atelier Donn Barber	2nd Mention
Wynkoop, John, . .	New York	Atelier Donn Barber	2nd Mention

Note:—Thirty-one competitors entered.

LIGHTING AS A DECORATION.

ARTIFICIAL lighting has not been a favorite subject with the architect, and very few in the profession have made the question of lighting a special one, or have considered illuminants like gas and electricity from an architectural point of view. That it has a claim on the architect's attention no one will dispute, seeing the great value attached to lighting installations in the equipment and decoration of interiors. We do not, of course, place it on an equality with the natural means of lighting through windows and skylights, which have such important consequences in the distribution of light and shadow in our buildings. For we have not only to consider natural daylight as an essential of all well-planned buildings, especially in those like schools, public galleries and libraries, but as a means of increasing the value of architectural details and decoration. How very much, for instance, depends on the distribution of light in a room or a hall; it enhances or destroys the effect of ceilings, cornices, coves and wall relief. One side of a hall full of large windows throws a flood of light on the opposite wall without giving relief to the decorative features, like cornice and wall pilasters, while the side of the windows is submerged in a shadow—also detrimental to relief. The end walls are only partially lighted, and the glare of the light is so great that the shadowed side is in a deep gloom. With an end light all this is changed; the details are brought out in relief on both sides, and the panelled ceiling is also improved. The architectural decoration or embellishment ought to be designed accordingly to the projecting members, and moulded portions studied in relation to the position of the light. Top-lighting, though the best for many purposes, may, by casting deep shadows of cornice and ceiling, necessitate a complete

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change in the detail. Reflected and half lights play a large part in the general effect.

When we consider a room lighted by gas or electric light, we have quite another problem to consider in the design of relief decoration. Too deep or large projections and members may create dense or intense shadows. On the other hand, the number of cross-lights may subdue or lessen the shadows on the walls or ceiling, just as the chief plane of lighting is high or low. There is a distinct decorative value in artificial illumination which we do not get in the ordinary aperture lighting, as the lights may be concentrated in points along the wall or cove, be distributed in lines of light, or placed in large masses on the ceiling, or distributed evenly as pendants. To this question of distribution of artificial illuminants the architect may profitably turn his attention. Conditions will vary immensely. For reading and writing a larger percentage of light is required than for general purposes, as an assembly-hall. For a room of, say, 20 ft. square and 10 ft. in height the illumination of one candle-foot—(i. e., the definite unit, the illumination of the distance of 1 ft.)—is necessary for reading and writing on the surface of a plane 3 ft. above the floor level, says one authority. A five candle-foot strength is necessary for work of a detailed kind or on colored materials, and for engraving and fine mechanical work this light may be doubled. The wall surfaces and their reflecting power, of course, modify these units. Colored walls considerably modify the light. One text book gives the following table of the values of the co-efficient of diffuse reflection showing various modifications. Taking the direct light of illuminant at 1.00, the ecofficient of white paper is 0.80, white deal 0.45, yellow paper 0.40, light pink paper 0.36, dirty yellow painted wall 0.20, blue-green paper 0.12, emerald green paper, 0.18, blue paper 0.12, chocolate paper 0.04, black cloth 0.012. Smooth wall-papers and paints reflect a considerable proportion of white light, irrespective of their color. By the law of inverse squares, each candle-power at the source of light will give only $\frac{1}{216}$ candle-foot at any corner of a square room in which the source of light is the centre, or $\frac{1}{144}$ candle-foot, allowing 50 per cent. for augmentation by diffuse reflection, so that the centre light must be 144 candle-power to give adequate light in the corners of the room. This, of course, supposes greater light in the centre of the room, and is wasteful, and therefore the light is more economically employed when distributed over the ceiling.

The law of inverse squares proves that, in order to obtain the best result with economy in lighting, it is necessary, in the case of a large room or church, that it should be lighted by means of a reasonable number of separate lights judiciously distributed, instead of by a large single light or lights placed centrally in the room or building. As a certain degree of light is necessary in every room at the plane of illumination, assumed to be 3 ft. or 4 ft. above the floor, the lights should be so distributed as to produce a minimum illumination of about one candle-foot at each corner of the room, or the parts furthest from the light. The importance of distributing the light in accordance with the law of inverse squares is obvious. Large central lights are wasteful, and a centre candle-power necessary in a large room to light the extreme corners would be very great.

Architecture is so many-facèd, and touches so many planes of modern life—ecclesiastical, municipal, commercial, and social—that an architect ought above all other men to be broad-minded and to avoid anything like cliqueism or a haughty bearing toward his fellows.

SEVENTH INTERNATIONAL CONGRESS OF ARCHITECTS, LONDON, 1906.

AT the closing meeting of the sixth International Congress of Architects, Madrid, 1904, the Royal Institute of British Architects was commissioned by the International Bureau to organize the seventh congress in London in 1906, and members of the Royal Institute were appointed as members of the permanent International committee to form the nucleus of a committee of organization. The council of the Royal Institute of British Architects has appointed additional members, and the executive committee has been formed. His Majesty the King has graciously consented to confer his patronage on the congress, and H. R. H. the Prince of Wales has agreed to accept the position of honorary president. Several distinguished personages, at the head of whom is H. R. H. the Duke of Connaught, have accepted the committee's invitation to act as hon. vice-presidents, and the committee is now forming a general committee of eminent architects, painters, sculptors, and engineers. The executive committee is in communication with the various foreign architectural societies with a view to obtaining their co-operation in the congress. The congress will be held July, 16–21, 1906. The programme of the congress will consist of the inaugural meeting, the discussion of architectural questions of international importance, chosen and approved by the executive committee. A list of these themes will be published as soon as they have been selected; excursions to places of interest outside of London; visits to buildings and monuments in London; one or more soirées or conversaziones; an exhibition of architectural art; and a farewell banquet. Ladies will be admitted to the inaugural ceremony, excursions, and visits. It is hoped to constitute a committee of ladies, who will provide for the comfort of ladies visiting London for the congress.

BOOK REVIEWS.

Stained Glass Work. G. W. Whall. D. Appleton & Co., New York. 1905. $1.40 net.

The treatment of the above subject forms the fourth volume of a series entitled "The Artistic Crafts Series of Technical Handbooks," edited by W. R. Lethaby.

Mr. Whall has written in an informal simple tone addressing his remarks as a teacher to the student at the bench. This does not mean, however, that the book is confined exclusively to the interest of the junior craftsman. In reckoning up the classes to whom such a book as this should be addressed it would be necessary to name: The Worker in the ordinary shop; The magnificent and superior Artist; The Patron; The Architect and Church dignitary; and, lastly, to the well-equipped, picked student—brilliant and be-medalled, able draughtsman, able painter, who instead of drifting into the over-crowded ranks of picture-making, has now the opportunity of choosing other weapons in the armoury of the arts.

The text matter is amply illustrated. The architect who gives this book a careful reading will gain many points of value to him when the occasion arises for the use of stained glass work in his building.

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